

Hook Document: Forecasting the Widening Tuition Gap at UVA (1970-2030)

A Data Science Case Study on Equity, Access, and Prediction

Mission:

You are a second-year UVA student working as a data analyst for UVA's affordability task force. Over the past 50 years, tuition at UVA has rapidly increased for everyone, but the gap between in-state and out-of-state students has widened substantially, especially after 2000. Your job is to investigate whether this gap is expected to continue widening through 2030 using real historical UVA tuition data from 1970-2025. You will step into the driver's seat and:

- Analyze long-term tuition trends
- Measure how the in-state vs. out-of-state gap has evolved
- Use forecasting models to predict future behavior
- Interpret whether affordability is becoming more unequal over time

This is not just a data science problem, it is a policy problem with real consequences for students considering attending UVA.

Your Deliverable:

By the end of this case study, you will produce a validated forecasting analysis with a clear written interpretation of what the future tuition gap at UVA is projected to be and what the implications are for students. You will decide whether the data supports the idea that the tuition gap is a) stabilizing, or b) continuing to accelerate.

All project data, code, and materials are available here: <https://github.com/njw8jx/cs3>